OC 0054-06 Bonfire Restaurant
Site Plan 05-14100012

MSA. S. 1829-5844

GCH OR

OC 0054-06 Bonfire Restaurant Site Plan 05-14100012

MSA. S. 1829-5844

Late Or

Robert L. Ehrlich, Jr. Governor

Michael S. Steele Lt. Governor



Martin G. Madden Chairman

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401 (410) 260-3460 Fax: (410) 974-5338 www.dnr.state.md.us/criticalarea/

February 7, 2006

Mr. Blaine Smith, Zoning Administrator Town of Ocean City PO Box 158 Ocean City, MD 21843 VIA FACSIMILE

RE: Site Plan – Bonfire, 7009 Coastal Highway, File #05-14100012

Dear Mr. Smith:

Thank you for providing information on the above referenced site plan. The applicant proposes a planned overlay district to include 111 multi-family units and an existing restaurant on a 2.74-acre parcel. The property is waterfront with a twenty five foot setback requirement. Critical Area requirements for the project include Buffer mitigation, 10% pollutant reduction requirements and 15% afforestation. Staff has reviewed the information provided and we have the following comments:

- 1. The 25-foot setback and the 100-foot Buffer lines should appear on all plans.
- 2. The existing conditions and demo plan indicate "clearing and grubbing in areas between existing pavement and the 25-foot setback line." Any shrubs or trees removed within this area must be mitigated. This was not quantified in the project application.
- 3. The 25-foot setback (and 100-foot Buffer) must be measured from the <u>most landward</u> point of tidal waters or tidal wetlands as they currently exist on site. The setback line is shown from a wetland line, yet the mean high water line shown on several of the sheets is landward of the wetland line. This does not make any sense. The 25-foot setback needs correction and this will affect the design and location of the building.
- 4. Notwithstanding the above, we recommend that a supersilt fence be placed at the 25-foot setback line for the duration of construction to ensure protection.

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Mr. Blaine Smith February 7, 2006 Page 2 of 2

- 5. Only areas above mean high water are private property and can count toward plantable area. The property lines should be clearly shown at the mean high water line. Areas below mean high water belong to the State.
- 6. Plantable area should be recalculated based on comments 3 and 5 above. It is not clear that the 15% afforestation requirement is adequately addressed.
- 7. The plant list incorrectly calls arborvitae a small tree cedar and pear trees as large trees. An arborvitae should be considered a large shrub and a cedar and pear small trees. The planting credits should be re-calculated.
- 8. Use of pervious pavers with infiltration beneath must be supported by on-site soil information.

Thank you for the opportunity to comment on this concept plan. If you have any questions, please contact me at (410) 260-3477.

Sincerely,

Lee Anne Chandler
Science Advisor

cc: OC54-06

SITE PLANTAGE TO SURP SUDMISSION Cris

BONFIRE

Critical Area Project Application Town of Occurrence Town of Occurrenc Town of Ocean City

The Part of A	
RECEI	Date: 9 SAN '06
JAN 24	Project Name: BONFIRE
CRITICAL AREA	7/1/0//
	Tax Map: 114 Parcel: 6635 Block: Lot# Zoning 6C-1
	Property Owner BONFIRE RESTAURANT INC Phone 410-524-7171
	Property Owner Address 7009 COASTAL HWY OC, MD 21842
	Parcel size (SF): 119,251 (BUILDASLE)
	I. Project Description
	In the 100 foot buffer? Yes No (If yes, continue with Sec. I) (If no, skip to Sec. III)
	Parcels 40,000 SF or more: Critical Area setback is 25 feet. No impervious surface or cantilevering permitted within 25 feet of the shoreline/wetlands. ("Pervious" decks are permitted 10' into setback, per construction standards.)
_	Parcels less than 40,000 SF: Critical Area set back is equal to the zoning setback feet). No impervious surfaces permitted within the setback. ("Pervious" decks at ground level are permitted in the setback, per construction standards.)
	Existing Conditions
	Impervious surface (SF) 94 189 % of site impervious: 79.0%
	Impervious surface within the 100-foot buffer (SF): 6,347 sf.
	Proposed Conditions
	Impervious surface (SF): 96,828 % of site impervious: 81.2%
	Total SF of disturbed area: 115000
	Impervious surface within the 100-foot buffer (SF): 17,875 sf.

ıı.	Mitigation Worksheet in the 100-foot Buffer
1.	Detached Single Family Dwellings
	Value of Construction: \$
	a. Landscaping required in the amount of 2% of the cost of construction (Value of construction x .02 = \$)
	b. Total landscaping provided. Attach cost values and plant schedule. (Must equal or exceed "Means" book value.)
	c. Mitigation requirement (if a - b > 0) = Fee in Lieu of landscaping. S(To be paid prior to issuance of Certificate of Occupancy.)
Acti	Multi-Family and Commercial Mitigation worksheet (within the 100' buffer) - If not in 100-foot buffer skip to Section III below. - All SF values determined from "Landscaping Conversion Table" below. vity Description (Complete all that apply): Trees or shrubs removed from buffer (outside of setback):
b. T c. P d. Ir e. U f. In g. In h. Co i. To FEE	Frees or shrubs removed from setback # O x SF = x 2 = SF SF x 1 = SF SF x 2 = Z3 056 SF SF x 2 = Z3 056 SF Indisturbed pervious to improved pervious SF x 1 = SF Indisturbed surface disturbed but remaining pervious Indisturbed surface disturbed but remaining pervi
k. Setb	ack from water/wetlands 7,714 SF x .25 = 1,929 SF

II.

I ANDCC ADDITION	0011	
LANDSCAPING	CONVERSION CHAR	~
	CONTRACTOR CHAR	4 I.

Large tree = 200 square feet of mitigation Small tree = 100 square feet " " " Large shrub = 75 square feet " " "

Small shrub = 50 square feet " " "

Herbaceous plants = 2 square feet of mitigation per plant

III. Afforestation (Landscaping) Requirements Outside the 100-foot Buffer

- 1. Multi-Family and Commercial Development Within the 1000' Critical Area (but outside the 100' buffer) every development or redevelopment must be planted in woody vegetation in an amount of 15% of the site area.
 - a. Total landscaping required: Parcel size x .15 = 17888 SF.
 - b. Landscaping provided (use Landscaping Conversion Chart)

Large trees # 32 x 200 SF = 6400 SF Small trees # 38 x 100 SF = 3800 SF Large shrubs # 35 x 75 SF = 2625 SF Small shrubs # 107 x 50 SF = 5350 SF

TOTAL VALUE OF LANDSCAPING PROVIDED: 18,175 SF

2. Detached Single Family Dwellings

Value of Construction: \$_

a. Landscaping required in the amount of 2% of the cost of construction (Value of construction $x \cdot .02 = S$)

- b. Total landscaping provided. Attach cost values and plant schedule. (Must equal or exceed "Means" book value.)
- c. Mitigation requirement (if a b > 0) = Fee in Lieu of landscaping.

 S______(To be paid prior to issuance of Certificate of Occupancy.)

STAFF REVIEW SUBMISSION

PRELITY

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements

Step 1: Calculate Existing	g and Proposed Site Imp	erviousness
A. Calculate Percent Impen	viousness	
Site Area within the Critica	Il Area IDA, A = 2.74	acres 119,251s.
2) Site Impervious Surface A	rea, Existing and Proposed	d, (See Table 4.1 for details)
	(a) Existing (acres)	(b) Proposed (acres)
Roads Parking lots Driveways	69,437	22,618
Sidewalks/paths Rooftops Decks Swimming pools/ponds	2565 22,187	3035 70,675
Other		DUMP 450/TRAWS 100
Impervious Surface Area	94,189	96,828
Non-Structural BMPs Applie	ed to the Site	<u>-</u>
Non-Structural BMP	Disconnected Imperviou	s Area, Proposed (acres)
Disconnected Impervious Ar	ea	
Adjusted Proposed Impervio	ous Surface Area	
	pervious Surface Area – Di	sconnected Impervious Area
=	- scree- Sk	

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

5) Imperviousness (I)

> Existing Imperviousness, Ipre Impervious Surface Area / Site Area =

(Step 2a) / (Step 1) =

94.189 1/(119.25)

Proposed Imperviousness, Ipost

Impervious Surface Area / Site Area

(Step 4) / (Step 1)

96.828)/(119 251

C. Define Development Category (circle)

Redevelopment:

Existing imperviousness greater than 15% I (Go to Step 2A)

2) New Development: Existing imperviousness less than 15% I (Go to Step 2B)

3) Single Lot Residential: Single lot being developed or improved; single family residential; and more than 250 square feet being disturbed (Go to Section 5, Residential Approach, for detailed criteria and requirements.)

Step 2: Calculate the Predevelopment Load (Lpre)

A. Redevelopment

(R_v) (C) (A) (8.16)

 $0.05 + 0.009 (l_{pre})$

0.05 + 0.009 (79.0) = 0.761

(O.761) (**Z.74**) (8.16)

5,10 lbs/year of total phosphorus

Where:

Average annual load of total phosphorus exported from the site prior

to development (lbs/year)

R. Runoff coefficient, which expresses the fraction of rainfall which is =

converted into runoff

Ipre Predevelopment (existing) site imperviousness (i.e., I = 75 if site is

75% impervious)

С Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l)

0.30 mg/l

Area of the site within the Critical Area IDA (acres)

8.16 Includes regional constants and unit conversion factors B. New Development

Where:

L_{pre} =

Average annual load of total phosphorus exported from the site prior to development (lbs/year)

0.5 = A = Annual total phosphorus load from undeveloped lands (lbs/acre/year)

Area of the site within the Critical Area IDA (acres)

Step 3: Calculate the Post-Development Load (Lpost)

A. New Development and Redevelopment:

$$L_{post} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{post})$$

$$L_{post} = (0.781)(0.3)(2.74)(8.16)$$

Where:

L_{post} = Average annual load of total phosphorus exported from the postdevelopment site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

Post-development (proposed) site imperviousness (i.e., I = 75 if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l)

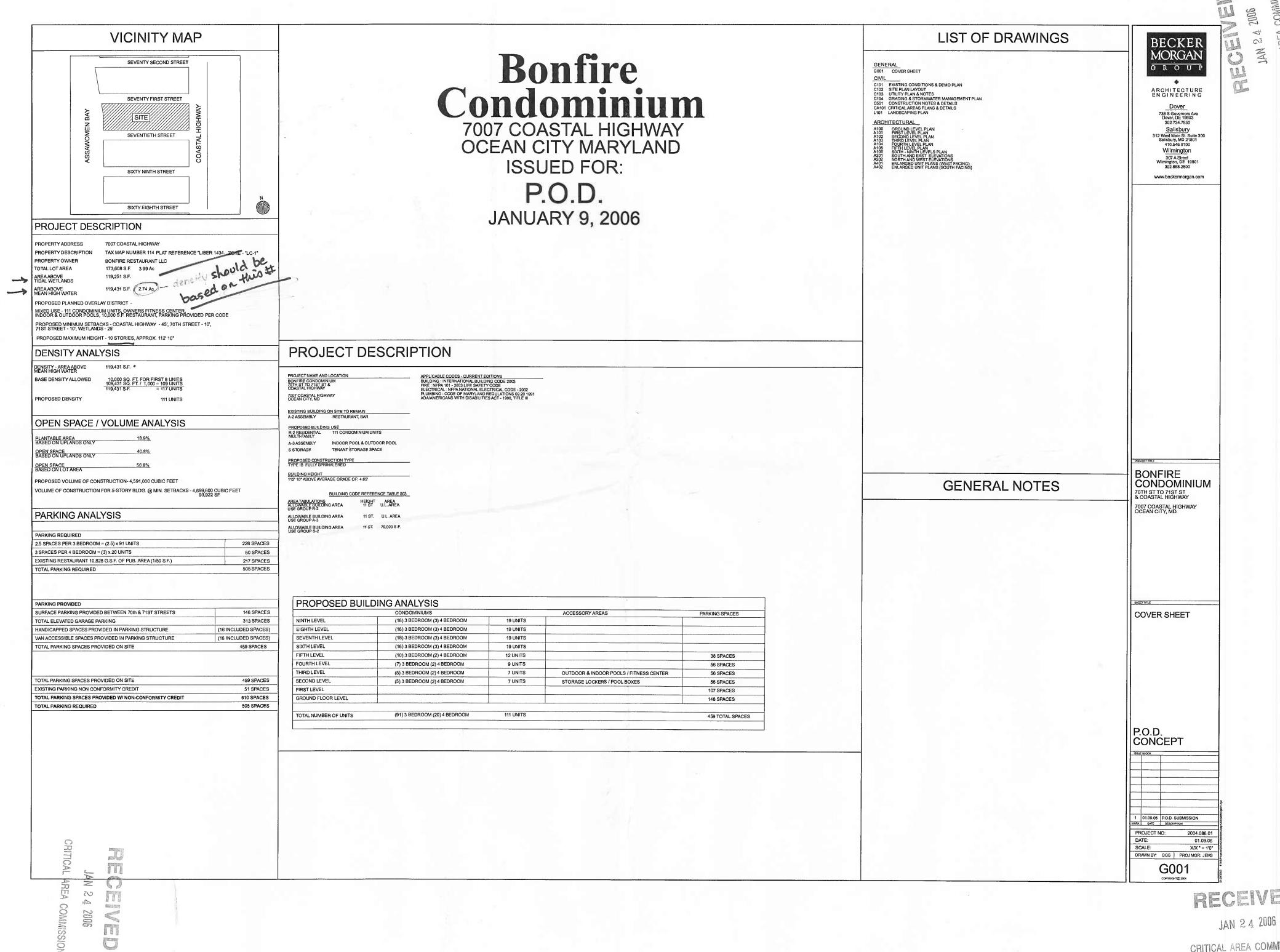
= 0.30 mg/l

A = Area of the site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4:	Calculate the Pollutant Removal Requirement (RR)
RR =	L _{post} - (0.9) (L _{pre})
,=	(5.24)-(0.9) (5.10)
=	
Where:	
RR = L _{post} = L _{pre} =	Pollutant removal requirement (lbs/year) Average annual load of total phosphorus exported from the post- development site (lbs/year) Average annual load of total phosphorus exported from the site prior to development (lbs/year)
Step 5:	Identify Feasible BMP(s)
mar yrania otomitw	ns using the screening matrices provided in the Chapter 4 of the 2000 ater Design Manual. Calculate the load removed for each option.
BMP Type	(L_{post}) x (BMP_{RE}) x $(% DA Served) = LR$
PAVERS	5.24 × 0.325 × 35% = 0.6 lbs/yea
	x =lbs/year
	x =ibs/year
	x =lbs/year
	Load Removed (total) = <u>O. G</u> lbs/year
Where:	Pollutant Removal Requirement (from Step 4) = lbs/year
Load Remo	ved = Annual total phosphorus load removed by the proposed BMP (lbs/year)
impated in Step 4	Average annual load of total phosphorus exported from the post-development site prior to development (lbs/year) BMP removal efficiency for total phosphorus, Table 4.8 (%) Fraction of the drainage area served by the BMP (%) Pollutant removal requirement (lbs/year) ed is equal to or greater than the Pollutant Removal Requirement, then the on-site BMP complies with the 10% Rule.
BMF % DA Serve RR the Load Remove emputed in Step 4	Average annual load of total phosphorus exported from the post-development site prior to development (lbs/year) BMP removal efficiency for total phosphorus, Table 4.8 (%) Fraction of the drainage area served by the BMP (%) Pollutant removal requirement (lbs/year)

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